

In re Application of: Yoram REITER
Serial No.: 10/075,257
Filed: February 25, 2002
Office Action Mailing Date: August 30, 2007

Examiner: VANDERVEGT, F. P.
Group Art Unit: 1644
Attorney Docket: 02/23338

In the claims:

1-20. (Canceled)

21. (New) A method of producing MHC class I-antigenic peptide complexes comprising:

(a) expressing in bacteria, a single chain MHC class I polypeptide comprising a functional mammalian β -2 microglobulin amino acid sequence covalently linked to a functional mammalian MHC class I heavy chain amino acid sequence; and

(b) isolating said single chain MHC class I polypeptide; and

(c) refolding said single chain MHC class I polypeptide in a presence of an antigenic peptide capable of binding said single chain MHC class I polypeptide, so as to obtain a plurality of MHC class I-antigenic peptide complexes, said plurality of MHC class I-antigenic peptide complexes being identical and recognizable by one CTL clone.

22. (New) The method of claim 21, further comprising the step of:

(d) isolating said MHC class I-antigenic peptide complexes via size exclusion chromatography.

23. (New) The method of claim 21, wherein said antigenic peptide is co-expressed along with said single chain MHC class I polypeptide in said bacteria.

24. (New) The method of claim 21, wherein step (a) is effected such that said single chain MHC class I polypeptide forms inclusion bodies in said bacteria.

25. (New) The method of claim 23, wherein said antigenic peptide and said single chain MHC class I polypeptide form inclusion bodies in said bacteria.

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26. (New) The method of claim 24, wherein said step of isolating said polypeptide further includes denaturing said inclusion bodies so as to release protein molecules therefrom.

27. (New) The method of claim 26, wherein said antigenic peptide is co-expressed along with said single chain MHC class I polypeptide in said bacteria.

28. (New) The method of claim 21, wherein said mammalian β -2 microglobulin amino acid sequence is a human β -2 microglobulin amino acid sequence and further wherein said mammalian MHC class I heavy chain amino acid sequence is a human MHC class I heavy chain amino acid sequence.

29. (New) The method of claim 21, further comprising reduction of said single chain MHC class I polypeptide prior to step (c).

30. (New) The method of claim 21, wherein said refolding is effected under renaturation conditions.

31. (New) The method of claim 30, wherein said renaturation conditions comprise an oxidizing agent.

32. (New) The method of claim 30, wherein said renaturation conditions comprise an oxidized glutathione.

33. (New) The method of claim 32, wherein said renaturation conditions further comprise arginine.

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34. (New) The method of claim 31, wherein said renaturation conditions further comprise arginine.

35. (New) The method of claim 21, wherein said functional mammalian β -2 microglobulin amino acid sequence is covalently linked upstream of said functional mammalian MHC class I heavy chain amino acid sequence.